



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,942	05/02/2001	Eugene G. Joseph	56654US002	6169

7590

10/01/2004

3M INNOVATIVE PROPERTIES COMPANY
OFFICE OF INTELLECTUAL PROPERTY COUNSEL
P.O. BOX 33427
ST PAUL, MN 55133-3427

EXAMINER

THOMPSON, CAMIE S

ART UNIT	PAPER NUMBER
----------	--------------

1774

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/847,942
Filing Date: May 02, 2001
Appellant(s): JOSEPH ET AL.

Ann Meuting
For Appellant

MAILED
OCT 01 2004
GROUP 1700

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 21, 2004. A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

Appellant's brief includes a statement that claims 1-20, 22-25 and 40-49 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

Art Unit: 1774

(9) Prior Art of Record

6,133,173	RIEDEL	10-200
4,659,923	HICKS, JR.	04-1987

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-20, 22-25 and 40-45 and 47-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Riedel et al., U.S. Patent Number 6,133,173.

The Riedel reference discloses a nonwoven wrap that can be used as a protective underwrap, medical tape or athletic tape, which comprises pressure-sensitive adhesive fibers and a non-pressure sensitive material that comprises conjugate fibers of different polymers or blends as per instant claims 1, 17, 20, 22-23, 25, 40-41, 43-45, 47 and 49 (see abstract, column 1, lines 32-column 2, line 68 and column 3, lines 1-8). Riedel also discloses that the nonwoven wrap has a basis weight from 40 to 200 g/m², an elongation break from 100 to 900 percent, tensile strength of at least 40-260 g/cm and at least 150% of the load at yield point as per instant claims 1, 3-5,

Art Unit: 1774

15, 17, 19-20, 22-23, 25, 40-41, 43 and 48 (see column 2, lines 24-25; claims 1, 2 and 9-14 and Table 1, column 14). The reference also discloses that the polymeric conjugate fibers are substantially continuous microfibers that have a diameter generally less than 25 microns as per instant claims 1, 2 and 7 (see column 2, lines 48-50 and column 3, lines 16-19). The non-pressure sensitive adhesive material is fibrous in form is discloses in the reference as comprising 5 to 95 percent of the basis weight of the fibers as per instant claim 6 (see column 9, lines 26-52). Riedel discloses using suitable pressure-sensitive adhesives that include polyalphaolefin, rubber resin adhesives and acrylate adhesives wherein the acrylate polymer is crosslinked and comprises copolymerized monomers comprising at least one monofunctional free-radically copolymer reinforcing monomer having a homopolymer glass transition temperature higher than that of the alkyl (methyl) acrylate monomer as per instant claims 9-11, 13-14, 19, 24 and 42 (see column 4, lines 35-38; column 5, lines 31-55 and column 6, line 16-column 7, line 26). A vinyl group such as styrene is discloses in the reference as a suitable crosslinking agent as per instant claim 12 (see column 7, lines 35-54). The Riedel reference discloses that the non pressure-sensitive adhesive fibrous material comprises an elastomer and has a force of about 7.5-10 MPa as per instant claim 15 and 20 (see column 9, lines 53-column 10, line 3). Suitable non-adhesive materials for use in forming conjugate fibers, for use in blends with the pressure-sensitive adhesive or for use as separate fibers are disclosed in the Riedel reference and include elastomeric materials that include metallocene-type polyethylene copolymers as per instant claim 17 (see column 8, lines 67-column 9, line 25). The conjugate microfibers can be present in the form of two or more layered fibers, sheath-core fiber arrangement or "island in the sea" type fiber structures as per instant claim 18 (see column 3, lines 3-8). The microfibers of Riedel meet

Art Unit: 1774

the applicant's definition of minimicrofibers as being microfibers made out of more than one fiber.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hicks, Jr., U.S. Patent Number 4,659,923 in view of Riedel et al., U.S. Patent Number 6,133,173.

The Hicks reference discloses a medical sensor that uses fiber optics comprising of pressure-sensitive adhesive fibers as per instant claim 46 (see abstract, column 3, lines 10-12, column 7, lines 55-59 and column 8, lines 9-10). Hicks does not disclose the components of the pressure sensitive adhesive fibers as per instant claim 1. Riedel does teach a nonwoven wrap that can be used as a protective underwrap, medical tape or athletic tape, which comprises pressure-sensitive adhesive fibers and a non-pressure sensitive material that comprises conjugate microfibers of different polymer blends. The microfibers of the Riedel reference meet the applicant's definition of minimicrofibers as being microfibers made out of more than one fiber. It would have been obvious to one of ordinary skill in the art to use the pressure-sensitive adhesive fibers of the Riedel reference in order to obtain a medical device that allows for the core of the device to be subjected to lateral tension forces (see Hicks, Jr.: column 8, lines 16-17).

(11) *Response to Argument*

Appellant argues that the Riedel reference does not anticipate every limitation of the claimed invention. Riedel discloses a nonwoven wrap that is formed from coherent fibers including pressure-sensitive adhesive fibers. The Riedel reference also discloses that the pressure-sensitive adhesive fibers can be formed as microfibers. The pressure sensitive or microfibers of the Riedel reference can be present in distinct regions in a conjugate fiber such as "island-in-the sea" structure or blend. Additionally, the reference discloses that the conjugate fibers are present substantially continuously along the fiber length in the discrete zones. It is also disclosed by the Riedel reference that the fiber diameter for the microfiber is less than 25 microns. The instant invention claims an adhesive nonwoven web comprising pressure sensitive adhesive fibers comprising a pressure sensitive adhesive component and an organic polymeric reinforcing material comprising a plurality of substantially continuous minimicrofibers having a diameter of no greater than about 10 microns within the pressure sensitive adhesive component, as does the Riedel reference. Appellant argues that the Riedel reference discloses that the adhesive fibers are described as being 50 microns or less in diameter ... and preferably are greater than 10 microns in diameter (column 2, lines 55-58). Riedel discloses in column 2, lines 55-58 that the adhesive fibers are 50 microns or less in diameter ... and preferably are greater than 10 microns in diameter when the fibers are melt spun. Riedel also discloses in column 2, lines 41-42 that the suitable fibers are melt blown. Riedel discloses in column 3, line 1-column 4, line 8 that melt blown fibers are suitable and have a preferable diameter of less than 25 microns, which encompasses the diameter claimed by appellant. Appellant argues that Riedel fails to teach an adhesive nonwoven web comprising pressure sensitive adhesive fibers

comprising a pressure sensitive adhesive component and a reinforcing material comprising a plurality of substantially continuous minimicrofibers having a diameter of no greater than about 10 microns with the pressure sensitive adhesive component. The Riedel reference discloses a nonwoven cohesive wrap that is formed from at least in part pressure-sensitive adhesive fibers, which are entangled with the other in the form of a coherent breathable nonwoven web. Riedel also discloses a pressure-sensitive adhesive component such as acrylate adhesives, polyalphalolefin adhesives and rubber resin adhesives. The microfibers of the Riedel reference are preferably less than 25 microns, which is within the range of the diameter for the instant minimicrofibers (less than 10 microns). The instant disclosure describes an adhesive nonwoven web as removable adhesive articles that include a backing and a pressure sensitive adhesive layer in the form of a nonwoven web, which includes adhesive fibers. The Riedel reference discloses a nonwoven wrap that is formed from at least in part pressure-sensitive adhesive fibers, which are intimately entangled each with the other in the form of a coherent breathable nonwoven web (column 2, lines 35-40). Additionally, the Riedel reference discloses articles such as medical and athletic tapes, which adhere to a variety of dissimilar surfaces. Appellant argues that the Riedel reference is in contrast to the substantially continuous minimicrofibers of reinforcing material within each fiber. Appellant does not claim that the minimicrofibers are substantially continuous within each fiber. Appellant only claims that the minimicrofibers are substantially continuous within the pressure sensitive adhesive component, which the Riedel reference meets. Appellant also argues that the Riedel reference does not read on the instant invention in that the pressure sensitive adhesive fibers comprises about 60 weight percent to about 95 weight percent of the pressure sensitive adhesive component and about 5 weight percent to about 40 weight

percent of the reinforcing material based on a total weight of the pressure sensitive adhesive fibers. Column 9, lines 26-52 of the Riedel reference discloses that the pressure sensitive adhesive fibers present in 80 to 20 percent of the basis weight of the fibers when in as blend. Additionally, the reference discloses that higher levels of adhesion can be obtained when the pressure sensitive adhesive component is present without significant levels of on non-adhesive polymer material. Column 10, lines 26-31 of the Riedel reference disclose that 5 to 50 percent of the adhesive fibers can be used to increase tensile strength. The nonwoven cohesive wrap comprising pressure sensitive adhesive fibers in the form of a nonwoven web of the Riedel reference has basis weight of 40-200 g/m², an elongation break from 100 to 900 percent, tensile strength of at least 40-260 g/cm and at least 150% of the load at yield point. Appellant claims an adhesive nonwoven web with a basis weight of about 55 g/m², a maximum load of at least about 30 g/cm, which is about 150% of the load at yield point and an elongation at break of at least about 50%. The Riedel reference and the instant adhesive nonwoven web perform within the same parameters. Appellant argues that the Riedel reference fails to teach an adhesive nonwoven web in that it teaches only cohesive materials – materials that will typically only stick to itself. Riedel discloses in column 1, lines 1-3 pressure-sensitive adhesive, cohesive wraps. Riedel also discloses that the wrap is in the form of a nonwoven web. The 35 U.S.C. 102(e) rejection under Riedel et al., is maintained.

Appellant argues that the case of prima facie obviousness has not been met with the combination of the Hicks, Jr. and Riedel references. The rejection of claims 1 and 46 under 35 U.S.C. 103(a) as being unpatentable over Hicks, Jr., U.S. Patent Number 5,4659,923 in view of Riedel et al.,

Art Unit: 1774

U.S. Patent Number 6,133,173 is withdrawn due to appellant's argument that the Hicks references does not provide the components of the claimed pressure sensitive adhesive fibers.

For the above reasons, it is believed that the Riedel rejection should be maintained.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Camie S. Thompson
September 24, 2004

Conferees
Rena L Dye *RD*
Terrell Morris - *FM*


RENA DYE
SUPERVISORY PATENT EXAMINER

A.O. 1774

Ann Muetting
MUETING, RAASCH & GEBHARDT, P.A.
P.O. BOX 581415
MINNEAPOLIS, MN 55458